State and Local Telecommunication Services Video Teleconference Oct 14, 2010

Please pass around a sign up sheet.

Include:

- your name
- who you represent
- email
- phone number

Scan and email to apalmer@mt.gov
Or FAX to 406 444-2701

State and Local Telecommunication Services Agenda

Topic	Presenter
Introduction	Steve Bender
Financial Transparency Model	Doug Volesky
Network Expansion Project	Steve Noland
SummitNet Video Services	Kris Harrison
Other SummitNet Services	Stuart Fuller
SummitNet Security	Lynne Pizzini
Local Government Rates	Steve Bender
Questions and Answers	Round Robin

Amy Palmer, Customer Relationship Manager
406 444-6197 apalmer@mt.gov

State and Local Telecommunication Services

Kindly hold questions to the end!

State and Local Telecommunication Services

State of Montana

State Information Technology Services Division

Financial Transparency Model (FTM)

Doug Volesky

Chief Financial Officer

October 14, 2010

State Information Technology Services Division

Financial Transparency Model

Prior to FY2008

- Homegrown budgeted system
- Traditional budgeting
- Forecast spending by expense code
- Allocated to managers

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Financial Transparency Model

Issues

- Need for better documentation and justification
  - Legislature
  - Office of Budget and Program Planning
  - Clients/Customers
  - SITSD Executives
- Difficulty meeting customers needs with current resources
  - Demand was to do more with less
  - Tight budgets, tough to defend rates
  - Arbitrary cuts in rates without cutting expectations
  - Avoid internal subsidization
- No solid definitions of services

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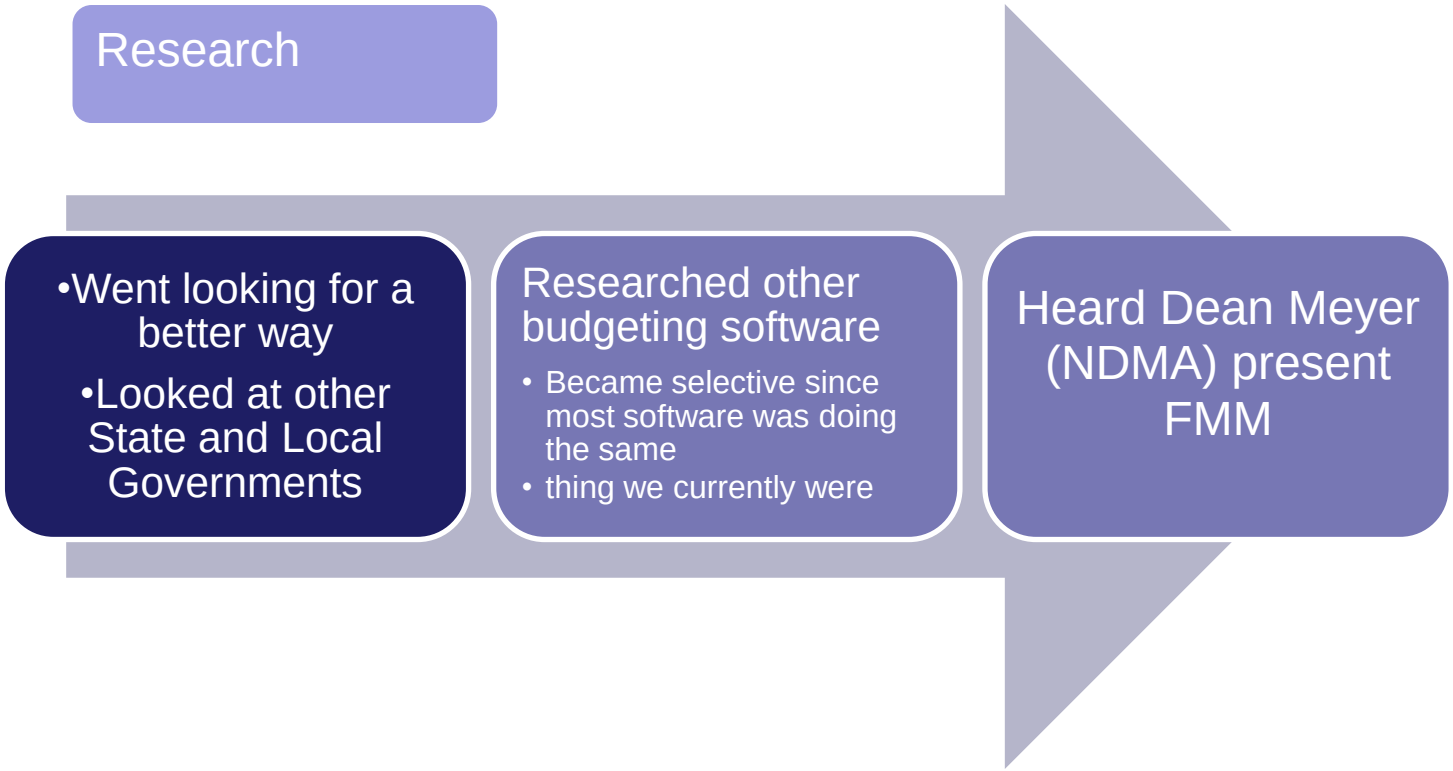
Financial Transparency Model



Financial Transparency Model

"The Full-cost Maturity Model (FMM) is a standard metric of an organization's capability to **plan** the full costs of its products and services."

SITSD has since branded the Full-cost Maturity Model as the Financial Transparency Model (FTM).

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Financial Transparency Model

The solution is straightforward in concept:

Forecast sales

- It begins with a business plan that forecasts what products and services SITSD will "sell" in the coming year.

Forecast costs

- Based on the business plan, an effective budget then forecasts the full costs of those products and services.

"Full cost"

- Means not only direct costs, but a fair share of all **indirect costs**.

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Financial Transparency Model

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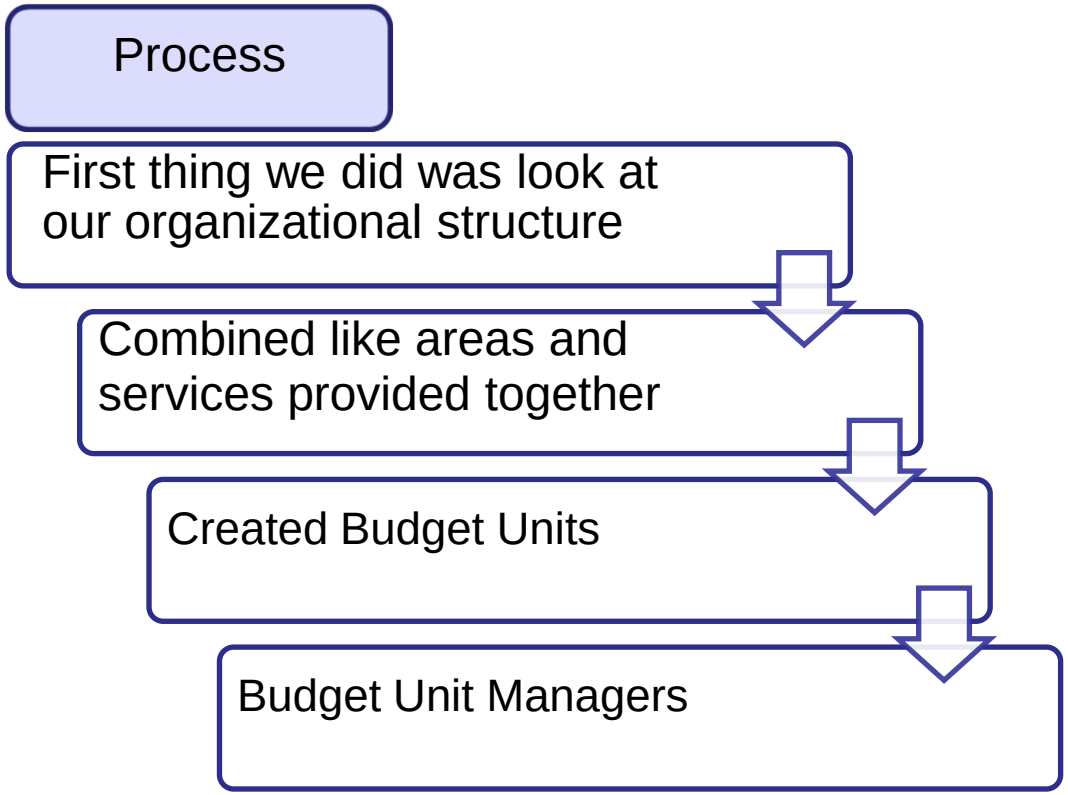
Financial Transparency Model



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Financial Transparency Model

Process

Deliverables/ Services

- Determine Deliverables (Services
- Proponents
- Revenue Source
- Units

Sales

- Forecasted Units
- Priorities

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Financial Transparency Model

Deliverables = Product/Services

Budget Unit	*Product or Service*	*Revenue Source*	*Proponent*	*Unit of Measure*	*Forecasted Units*	*Priority*	*Estimated Hours*
Voice - SBM	New Data Center	Venture		Hour	150	2	150
Voice – SBM	Basic Telephone	Overhead		Headcount	198	1	15
Voice – SBM	Video Conf Bridge	Internal	Video - SBM	Port	20	1	25
Voice – SBM	Long Distance	Client	EXE-DOT	LD Minute	1,600,000	1	1.25
Voice – SBM	Long Distance	Client	EXE-DOA	LD Minute	865,500	1	.625

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Financial Transparency Model

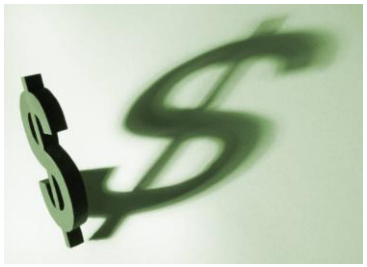
Process

Compensation Expenses

- Billable-time Ratios
- Compensation Costs
- Contracted Services
- Forecast Hours

Other Expenses

- Direct Costs
- External Indirect Costs
- Internal Indirect Costs
- Overhead Costs



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Financial Transparency Model

Process

Reimbursements

- Fee-for service Revenues
- Subsidy
- Venture

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Financial Transparency Model

Rates

- Using the same data – the cost of its products and services – we can also calculate rates.
- Rates must represent the full cost of the deliverable.
- By using the full cost data, and removing “non-service” costs, a department can be confident that its rates are fair, defensible, and directly comparable to benchmarks like outsourcing.

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Financial Transparency Model

Finalize

Process

- Management Review
- Analyze Impacts
- Budget Negotiations with Customers
- Reports
  - Staffing Analysis
  - Cost Drivers
  - Budget Reports
- Service Catalog

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Financial Transparency Model

Results

- No Reduction in Services
- Documented and Understandable Budgets
- Credible and Defensible Rates
- Fully Defined Services and Service Catalog
- Customer Focused
  - Customer Input
- Internal Benefits
  - Developed Culture of Entrepreneurship
  - Team Work

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Financial Transparency Model

Benefits

- Clients learn the true costs
- Clients defend budget for projects and services
- Budget provides decision making info for executives
- Budget defines what's funded and what's not
- Price lists are fair, defensible and understood
- Pricing is comparable to outsourcing

State Information Technology Services Division

Financial Transparency Model

Reaction

- Agencies (customers)
  - Understood value of services
  - Understood costs
  - Better communications
  - Making tough purchase decisions
  - Credibility
  - No more Subsidies/Equitable
    - Winners ☺ / Losers ☹

SummitNet Network Expansion

Steve Noland, Bureau Chief
Network Technology Services

Summitnet III history

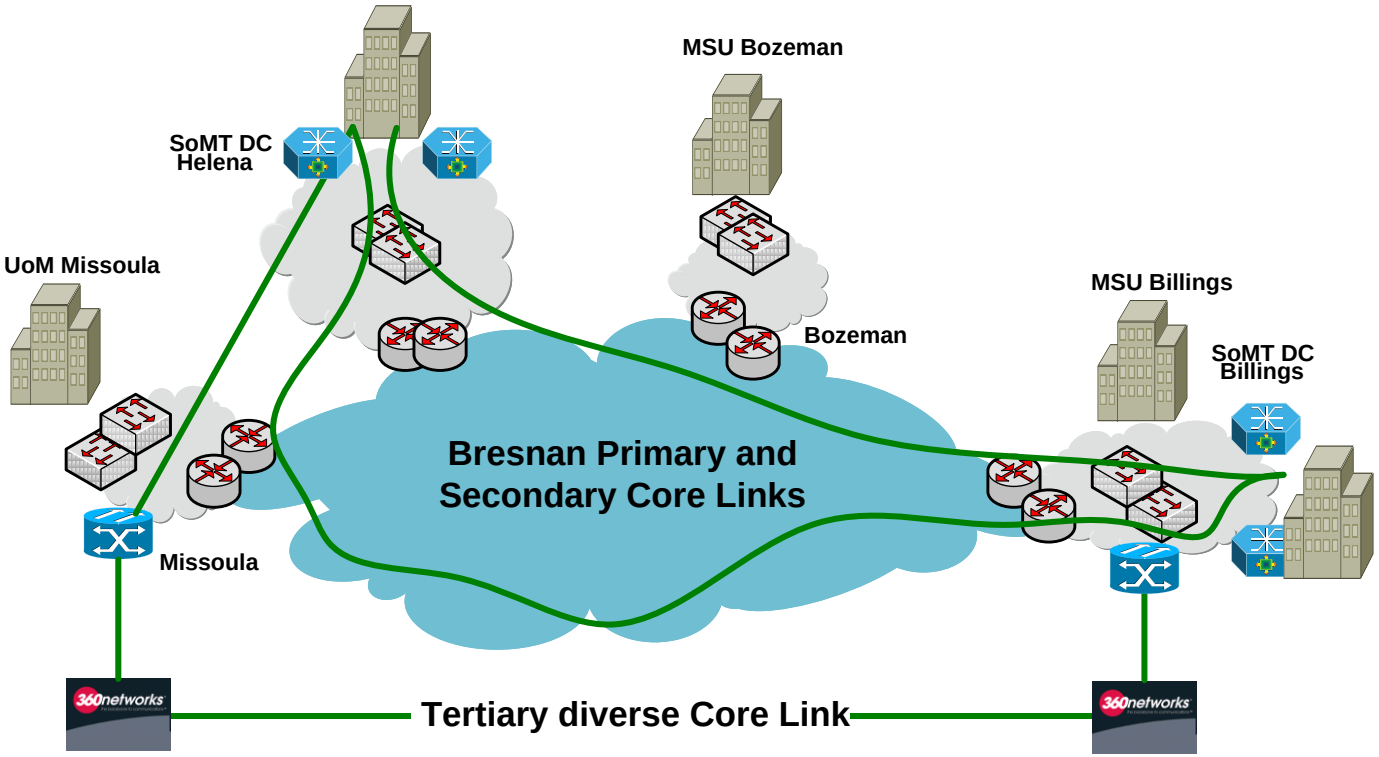
- 2007 Special Session
- HB-4
- RFP #07-1272B Cancelled due to funding changes by the Legislature
- RFP #08-1276B Released 9/28/2007

  Two Vendors Responded, Bresnan Communications and Qwest Communications
- State/University System reserved the right to award multiple contracts
- Phase I rollout to include 118 sites

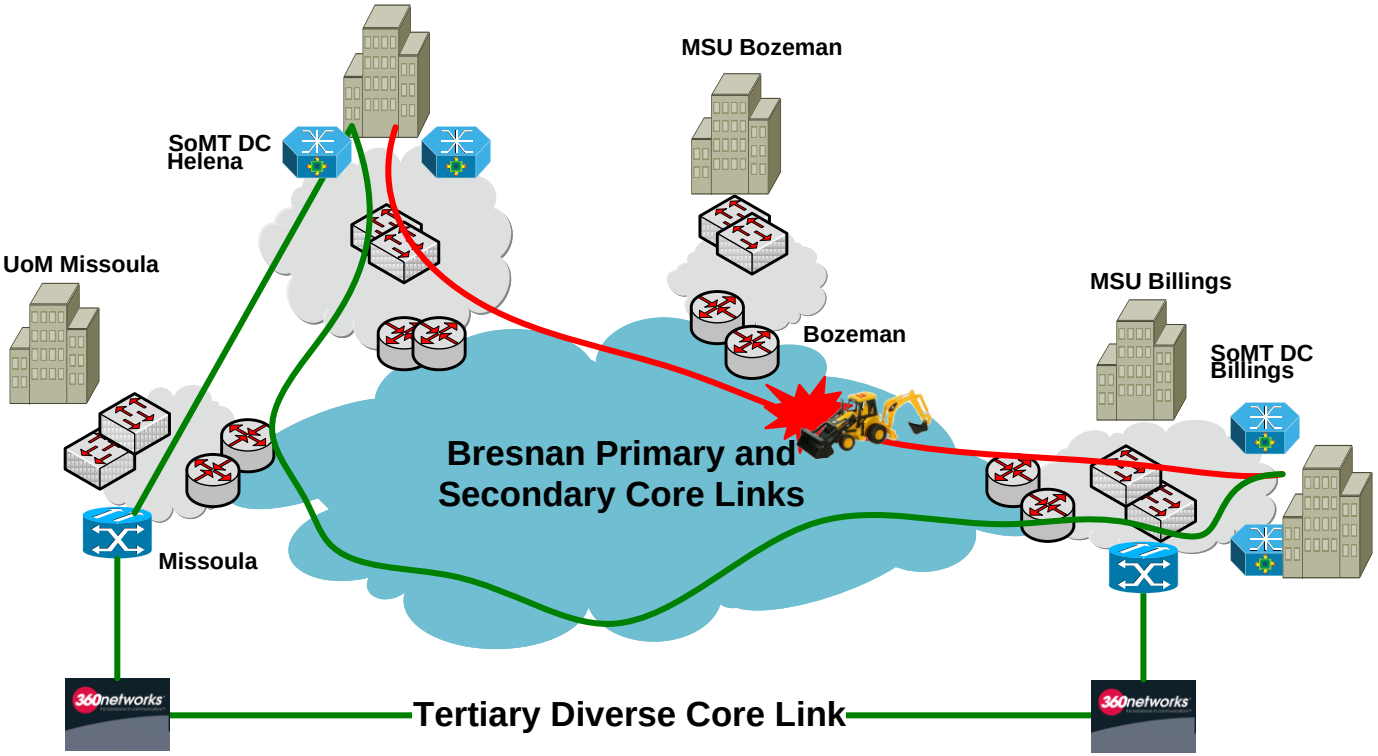
Summitnet III Core Network

- Termination Points in:
  - Billings, Bozeman, Missoula and Helena
  - 2.5Gb Primary Route
  - 1Gb Secondary Route
  - Auto Failover
- Shared by State & University System

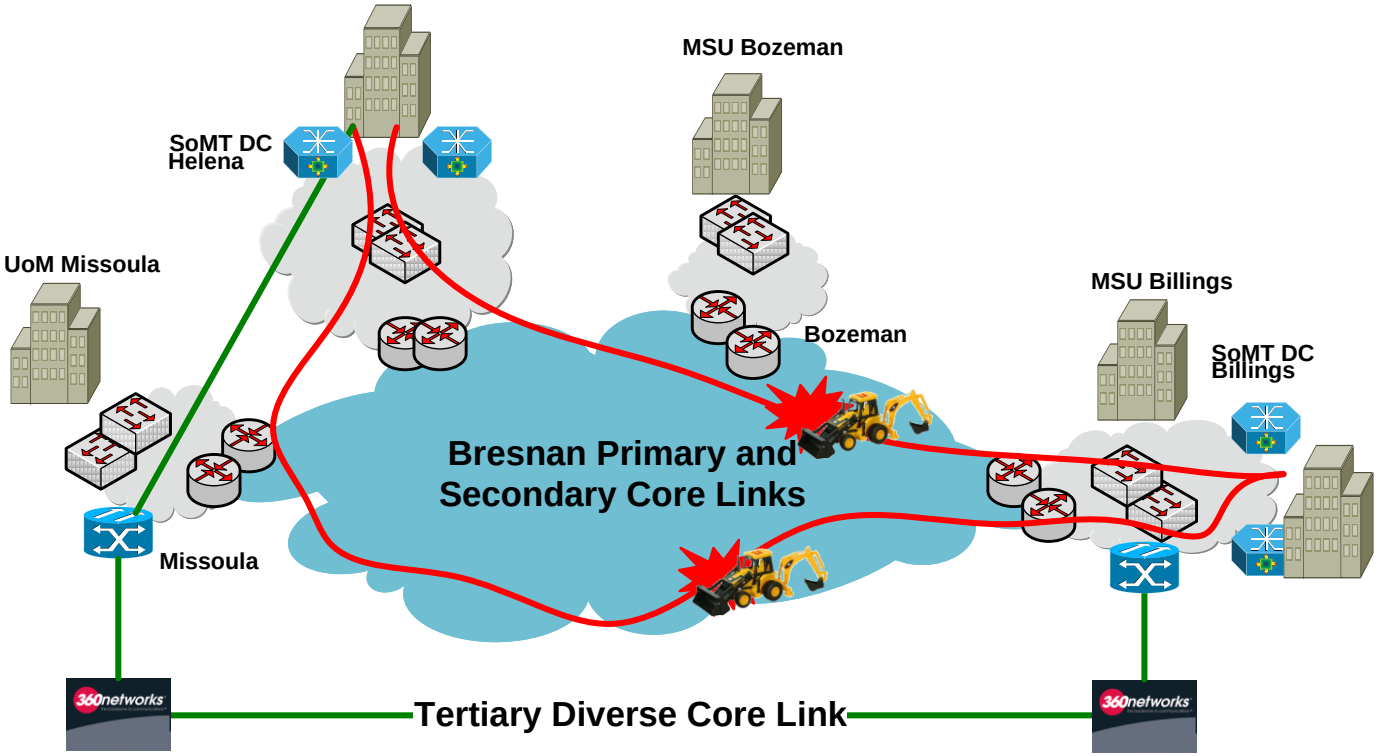
State of Montana MPLS Core



State of Montana MPLS Core
Primary Link Failure



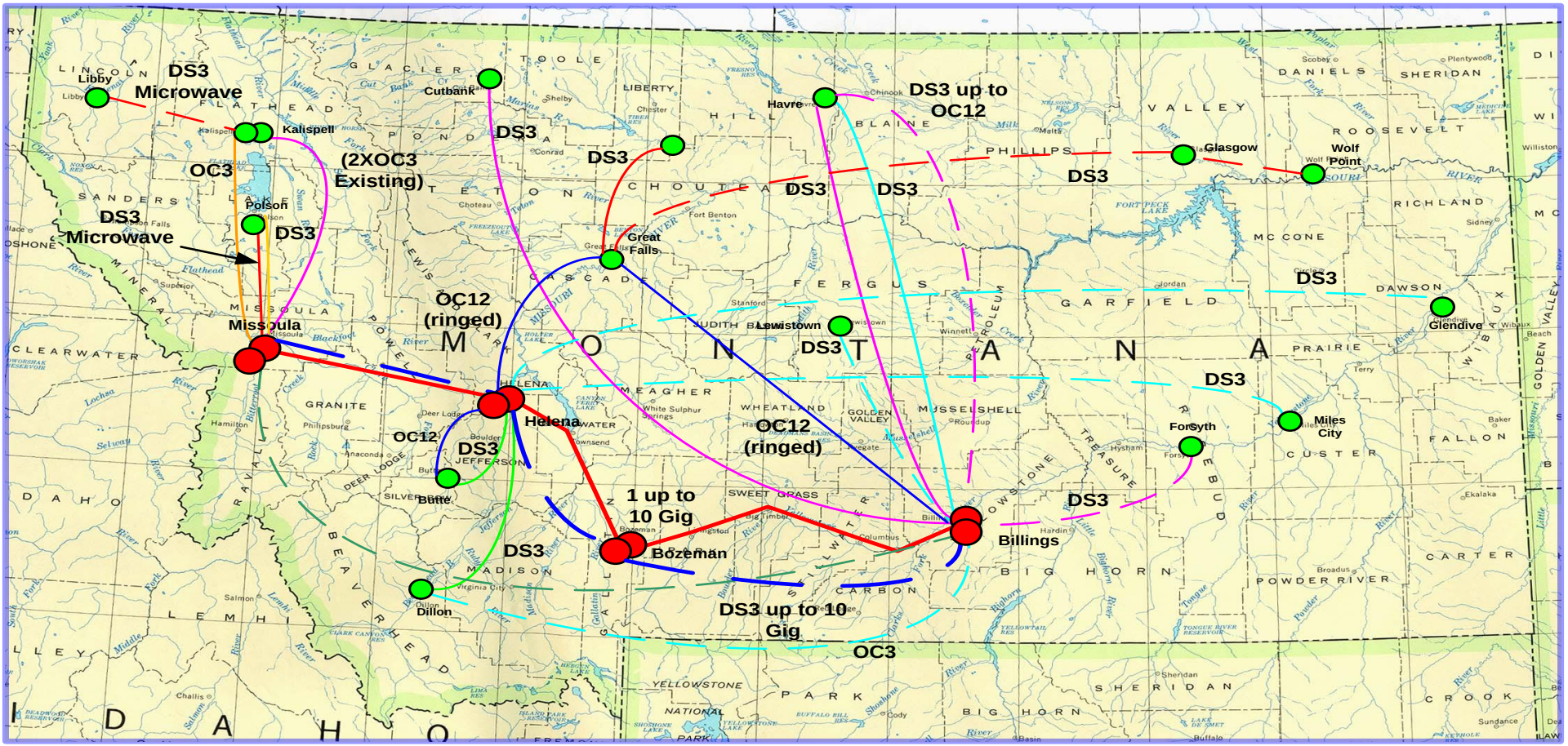
State of Montana MPLS Core
Primary and Secondary Link Failure



Bresnan's Aggregation Network

- 13 Aggregation Points throughout the state
- Uses Combination of different carriers and many include route diversity
- Shared by State and University System
- Co-locate requirements in Glendive, Miles City and Lewistown

Leased Circuit Partners - Hub Primary and Diverse Carrier Connections



- Secondary Hub
- Core Hub
- VisionNet – See Map for Capacity
- CenturyTel – OC3
- Bresnan – See Map for Capacity
- 360 – See Map for Capacity
- QCC – See Map for Capacity
- XC Networks – DS3 Diverse Microwave

Dashed Lines – Available & Proposed to State
Solid Lines – Existing Presently & Can be Augmented

Summitnet III – State and Non-State

- Separate all traffic into State and Non-State by terminating all non-state traffic into a logically separate DMZ
- Provide a connection point where the traffic must pass through inspection such as a firewall before allowed access to secured resources within SummitNet
- Compartmentalize traffic - Divide the network into three areas or domains, State ,Non-State and the Internet

Traffic Shaping (QoS) Quality of Service

- **Traffic shaping** (also known as "packet shaping") is the control of computer network traffic in order to optimize or guarantee performance, lower latency, and/or increase usable bandwidth by delaying packets that meet certain criteria.

Traffic Shaping (QoS) Quality of Service

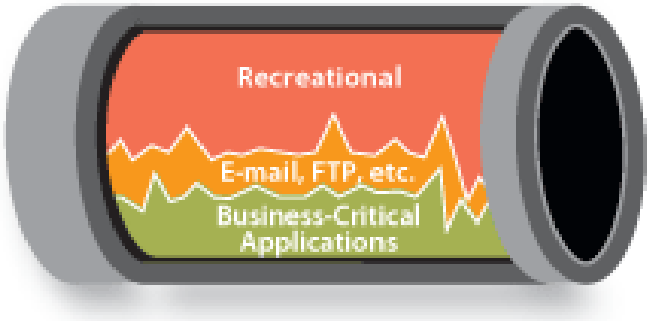
Traffic Shaping allows time sensitive traffic such as voice or video to have a higher priority through the network, thus ensuring functionality.

This is accomplished by:

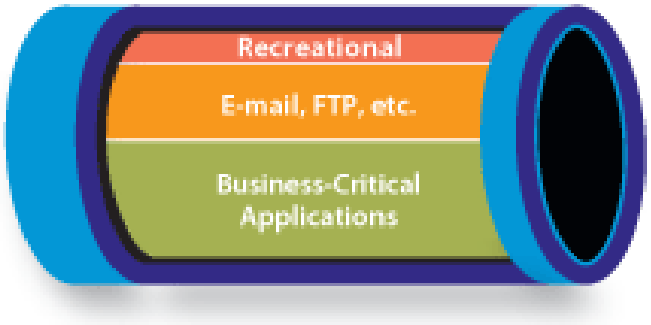
- Limiting the amount of data any one application is allowed to consume on the WAN
- Lowering the priority of non-business data i.e. downloading of content from the Internet.

Traffic Shaping

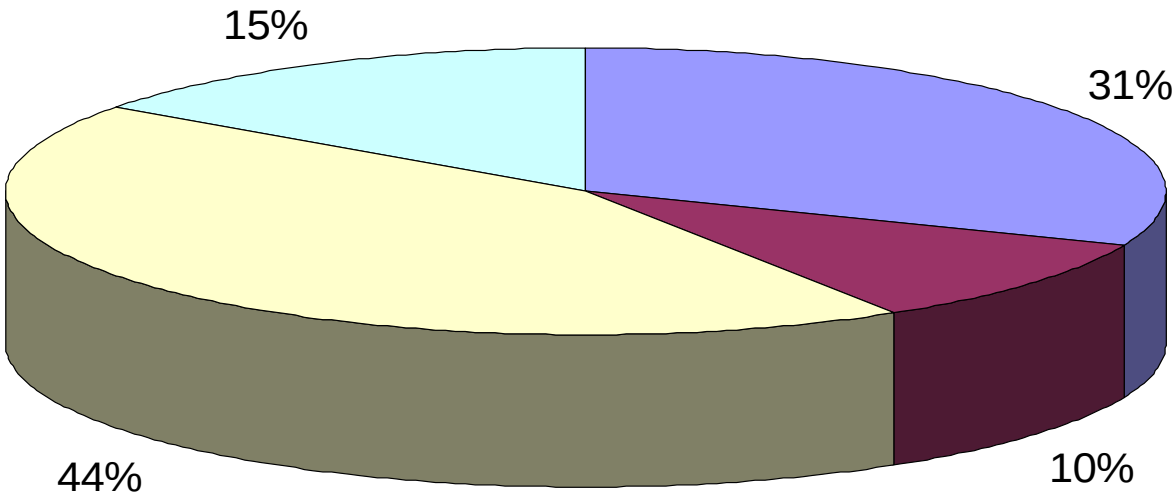
Without Shaping



With Shaping

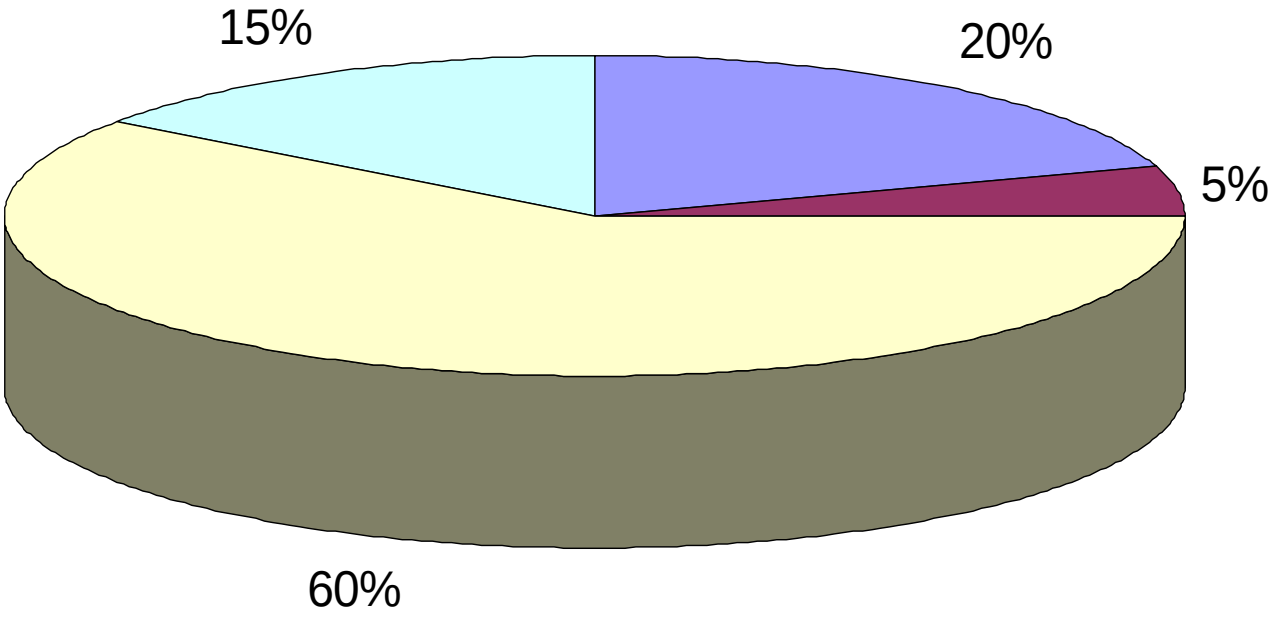


Traffic Shaping for a 3Mb Site



Legend
31% 768K Video conference
10% Routing / Management
44% Internal State Traffic
15% Best-effort (Internet)

Traffic Shaping for a 5Mb Site



Legend
20% 768K Video conference
5% Routing / Management
60% Internal State Traffic
15% Best-effort (Internet)

Summitnet III Successes

- All 56 Counties moved to Summitnet III
- Over 150 locations migrated to Summitnet III
- Supporting voice video and data on the same wire
- Greater Flathead valley vlan supporting Columbia Falls, Whitefish and Kalispell with logical local connectivity to a shared dispatch system in the new Kalispell Justice center
- Future migrations as budget becomes available

State of Montana Interactive Video Services

Presented by:

Kris Harrison
Network Technologies Services Bureau
State Information Technology Services Division

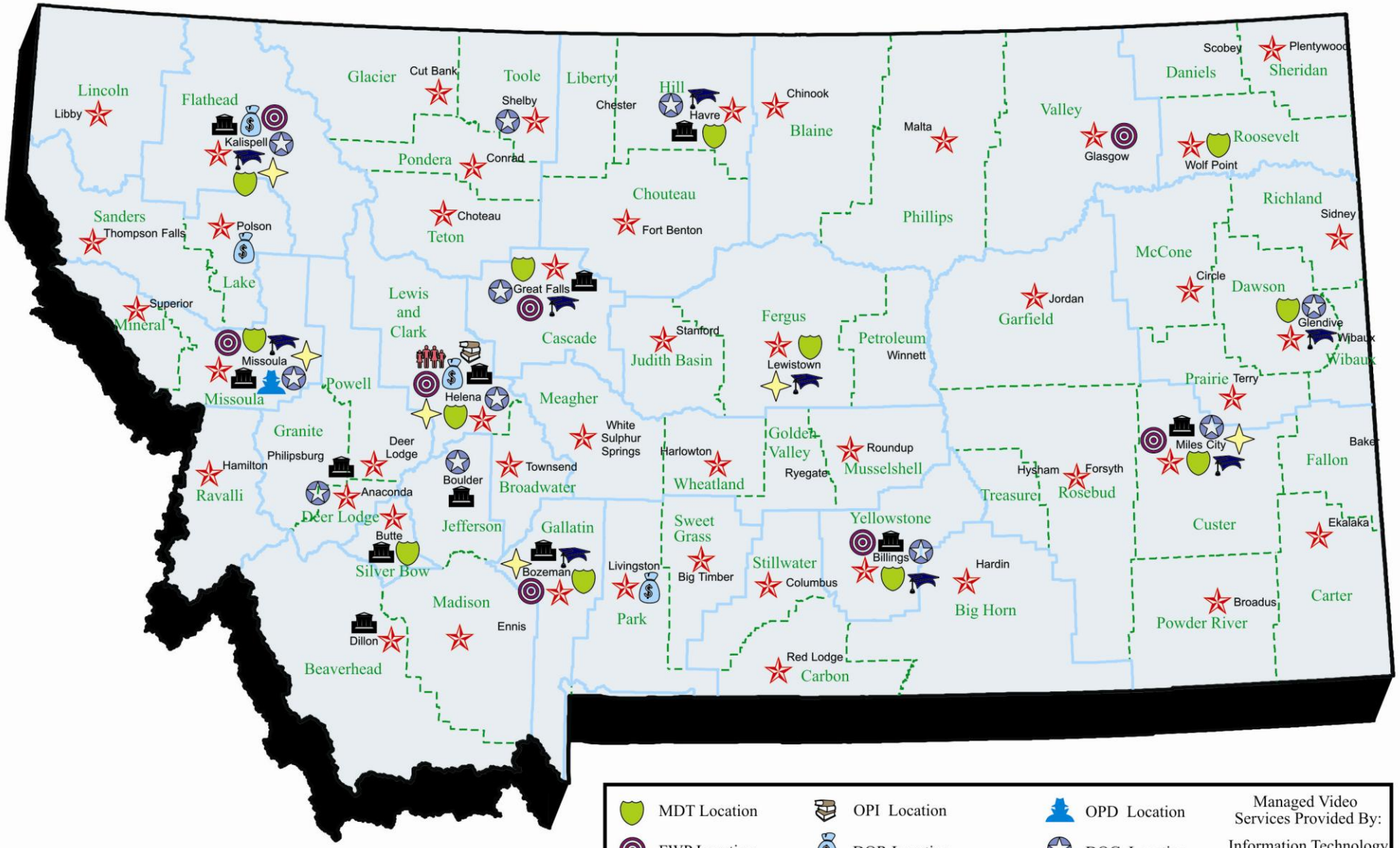
SummitNet Videoconferencing Network (SVN)

- Formerly METNET
- New Name New Team
- Video Operations Group:
  - Kris Harrison
  - Nancy Henderson
  - Lonnie Robinson

Background

- METNET History
- Technology
- Infrastructure
- Sites

State of Montana
Interactive Video Network



itsd.mt.gov

Judicial Video Network Users

Staying Ahead of the Curve

- Video Network Upgrade
- Service Improvements
- New Features & Capabilities
- Investments in Equipment & Personnel

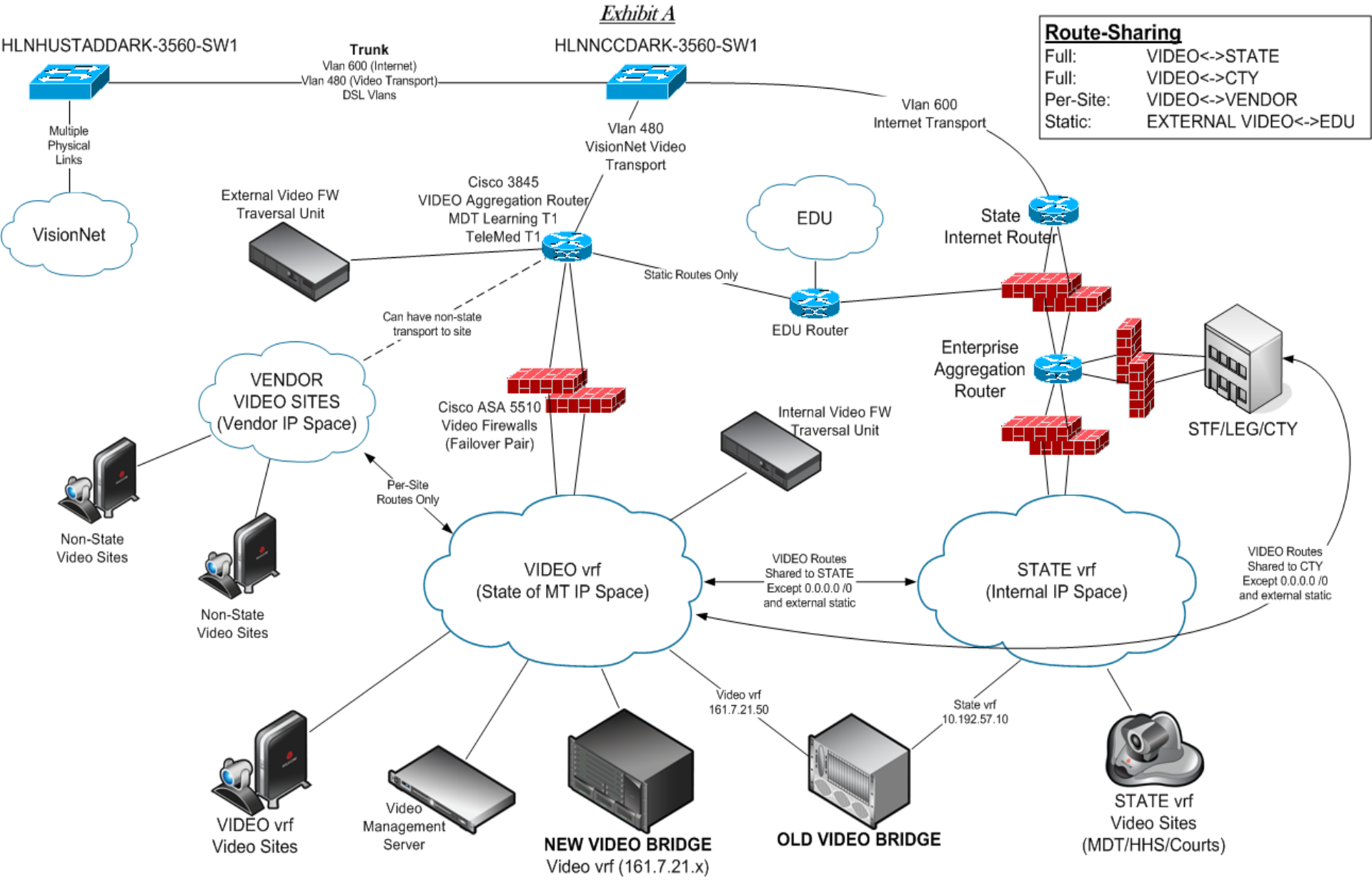


Exhibit A
Route-Sharing
Full: VIDEO<->STATE
Full: VIDEO<->CTY
Per-Site: VIDEO<->VENDOR
Static: EXTERNAL VIDEO<->EDU
HLNHUSTADDARK-3560-SW1
Trunk
Vlan 600 (Internet)
Vlan 480 (Video Transport)
DSL Vlans
HLNNCCDARK-3560-SW1
Multiple Physical Links
VisionNet
Vlan 480 VisionNet Video Transport
Vlan 600 Internet Transport
External Video FW Traversal Unit
Cisco 3845 VIDEO Aggregation Router MDT Learning T1 TeleMed T1
EDU
State Internet Router
Static Routes Only
EDU Router
Can have non-state transport to site
VENDOR VIDEO SITES (Vendor IP Space)
Cisco ASA 5510 Video Firewalls (Failover Pair)
Internal Video FW Traversal Unit
Enterprise Aggregation Router
STF/LEG/CTY
Per-Site Routes Only
Non-State Video Sites
Non-State Video Sites
VIDEO vrf (State of MT IP Space)
VIDEO Routes Shared to STATE Except 0.0.0.0 /0 and external static
STATE vrf (Internal IP Space)
VIDEO Routes Shared to CTY Except 0.0.0.0 /0 and external static
Video vrf 161.7.21.50
State vrf 10.192.57.10
VIDEO vrf Video Sites
Video Management Server
NEW VIDEO BRIDGE
Video vrf (161.7.21.x)
OLD VIDEO BRIDGE
STATE vrf Video Sites (MDT/HHS/Courts)

Philosophy & Approach

- Standards Based
- Security
- Future Scalability
- Efficiency
- Ease of Use

Access Procedures

- City/County Access
- Temporary Access List & Timeline
- Connectivity Options

Managed Video Services

- SLA Services
- FMM

Other SummitNet Services

ITSD FY 12/13

Stuart Fuller
Chief Technology Officer

Ability to Use State Services

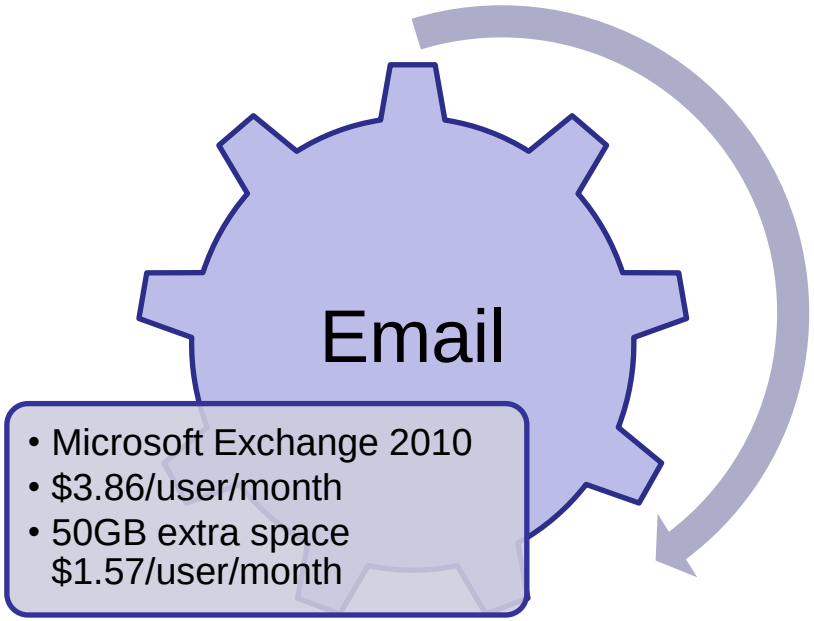
Counties on SummitNet have the ability to purchase any of ITSD's normal hosting services.

- Note: Because Counties are not paying the "Enterprise Services" fee or the "Microsoft EA" fee then some services may require payment of that fee or may come with additional charges past the published rate.

Services with rates are listed at
http://itsdservicecatalog.mt.gov

- Contact ITSD Customer Relations for more details and for any rate quotes.

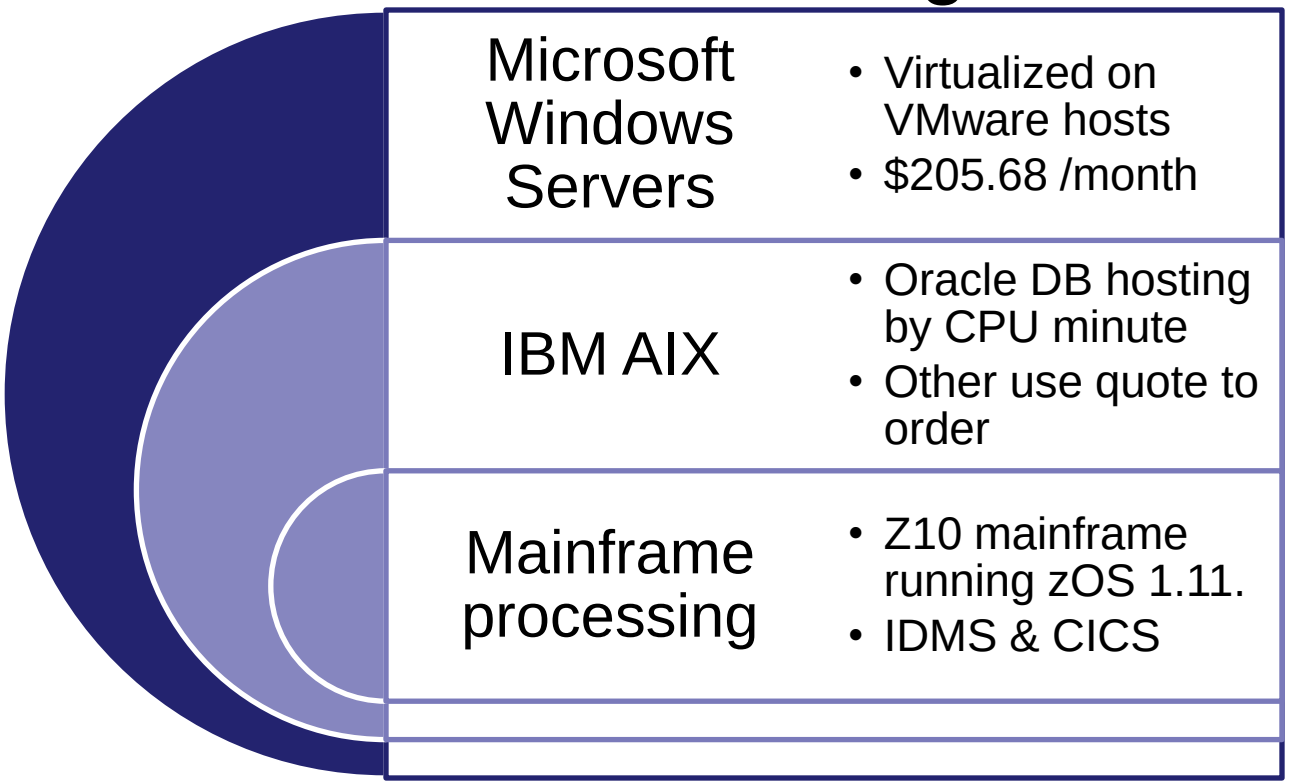
Frequently requested services



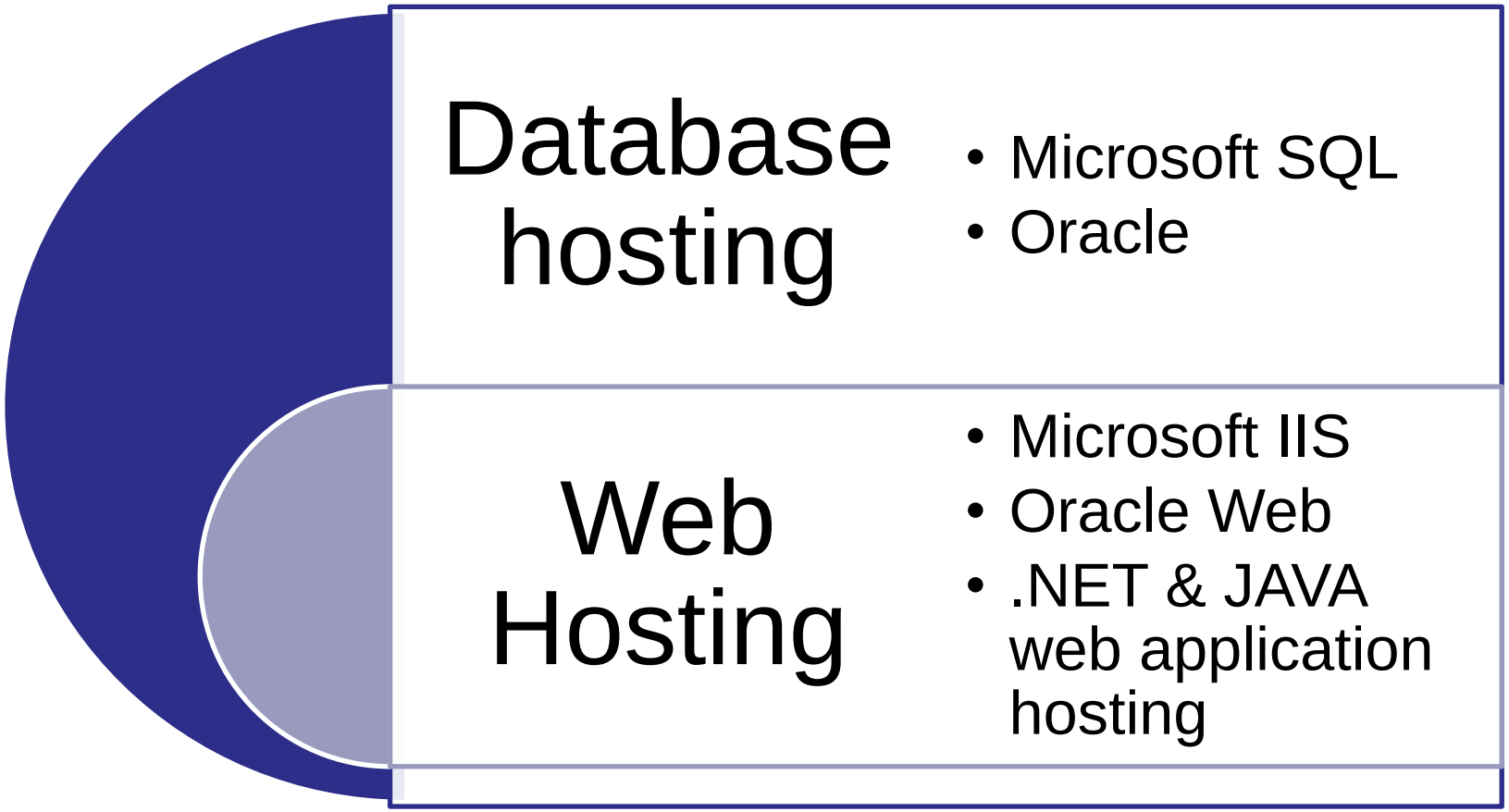
- If not paying the Microsoft EA / Enterprise Services then “bring your own licensing” for Office and Windows Server Cal’s

Frequently requested services

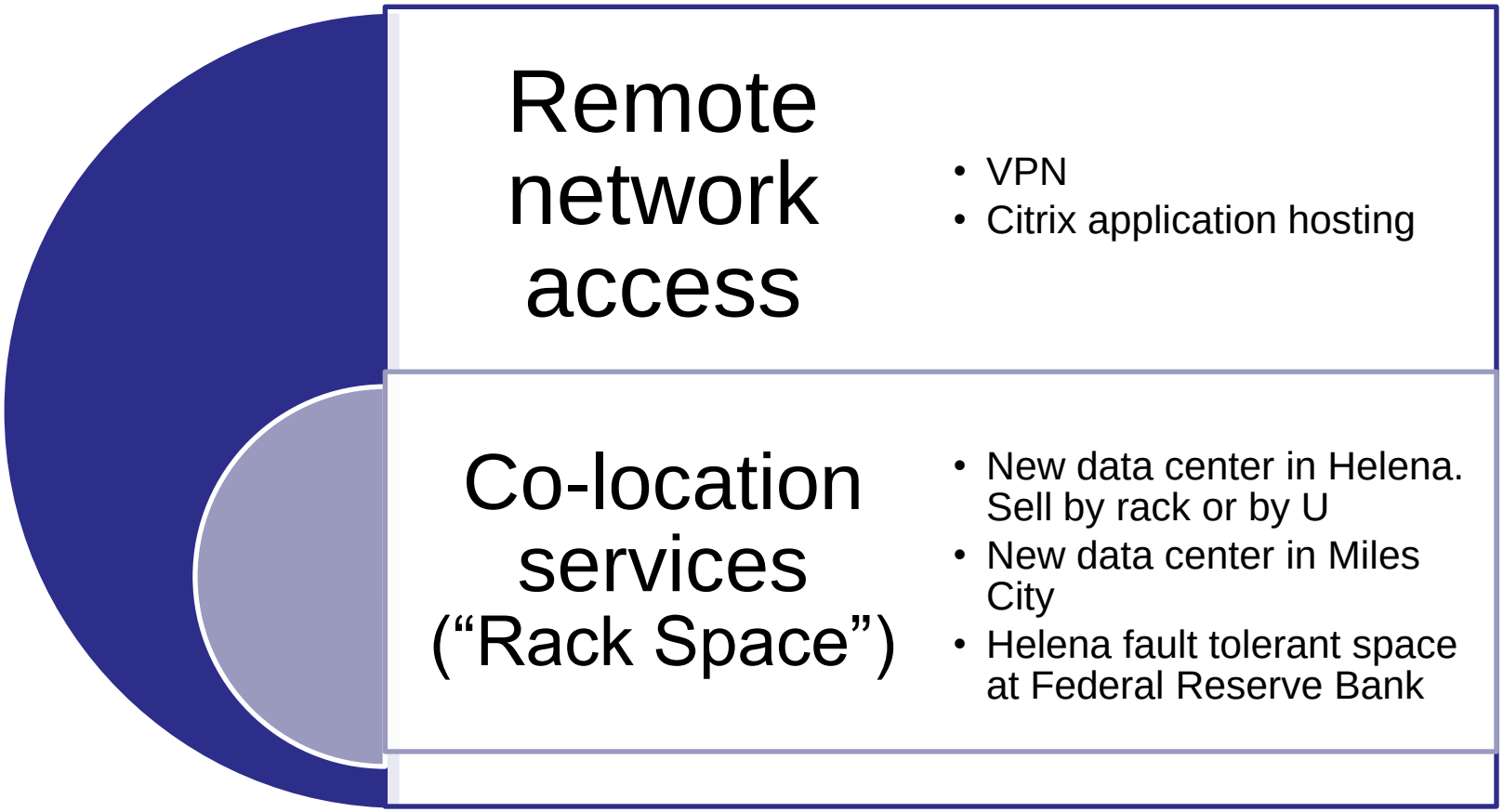
Server hosting



Frequently requested services



Frequently requested services



Frequently requested services

Filenet	• Document imaging and management
Sharp Content	• Web content management
Share Point	• Electronic Collaboration
ESRI	• GIS services
NetApp	• SAN storage
Comm vault	• Backup

ITSD Local Government Teleconference - Security

Lynne Pizzini, CISSP, CISM, CIPP
Information Systems Security Officer

Overview

- Importance of Security
- NIST Overview
- Effects on Local Governments
- Network Security

Importance of Security

- Compliance with State and Federal Law
- Agency Data
- Your Data!

What is NIST ?

Nothing is Secure in Technology
Need Information Security Tools
Need Idiot-proof Security Theme

National Institute of Standards and Technology

NIST Overview

- Federal Standards
- Security Standards according to FISMA – Federal Information Security Management Act
- 18 Families – Areas in 3 classes

NIST Class - Management

Families within the Management Class:

- Program Management
- Risk Assessment
- Planning
- System Services and Acquisition
- Security Assessment and Authorization

NIST Class - Technical

Families within the Technical Class:

- Access Control
- Identification and Authentication
- Audit and Accountability
- System and Communication Protection

NIST Class - Operational

Families within the Operational Class:

- Awareness and Training
- Configuration Management
- Contingency Planning
- Incident Response
- Maintenance
- Media Protection
- Physical and Environmental Protection
- Personnel Security
- System and Information Integrity

Effects on Local Governments

- What does this mean to you?
- Focus on the Technical Class

Network Security

Web Sense

Firewall Changes

Remote Access

Anti-Virus

Summary

- Importance of Security
- NIST Overview
- Effects on Local Governments
- Network Security

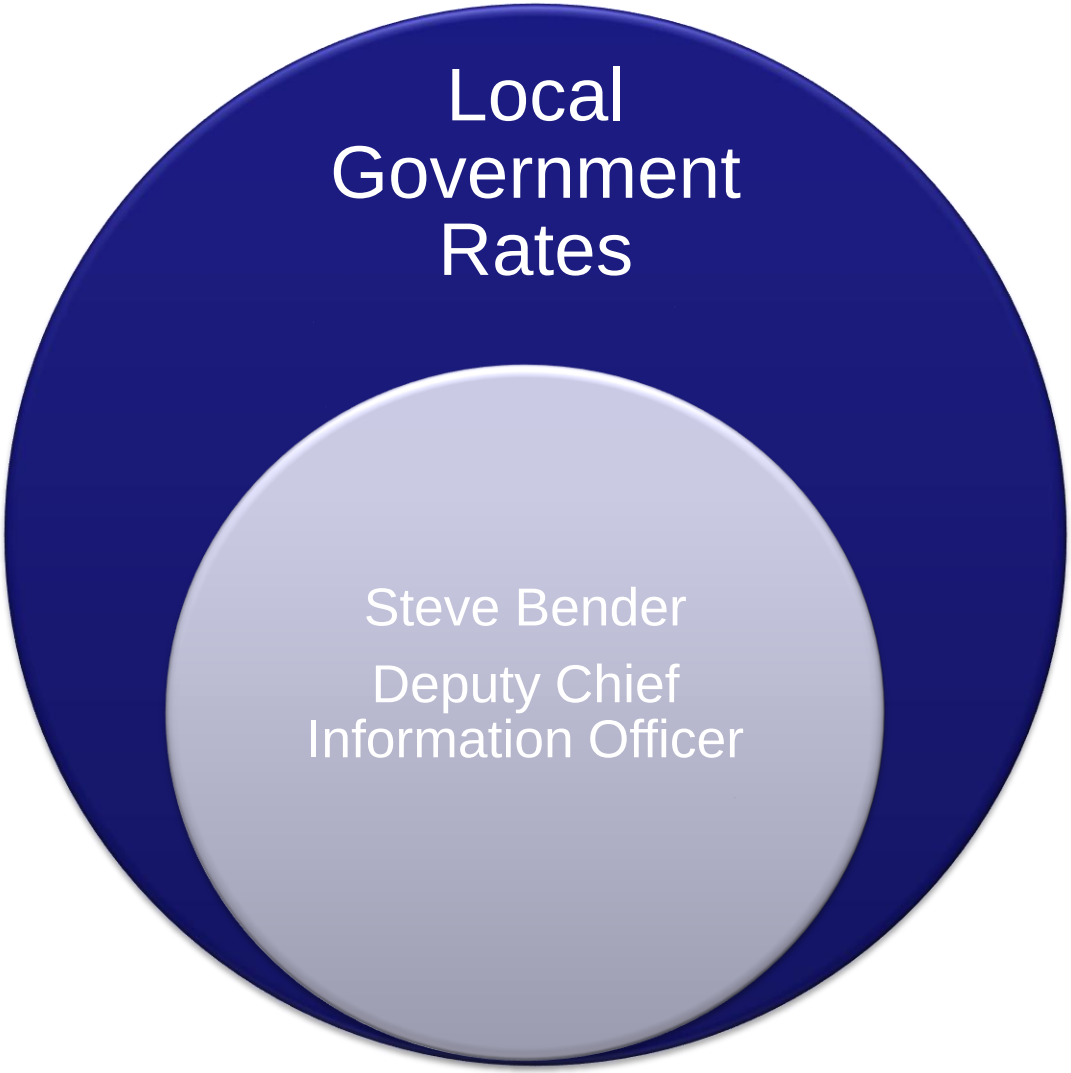
Final Comment

Unofficial motto:

“In God we trust, everyone else must have a digital signature.”

Author Unknown

State and Local Telecommunication Services



ANY QUESTIONS?